

## February (2012)

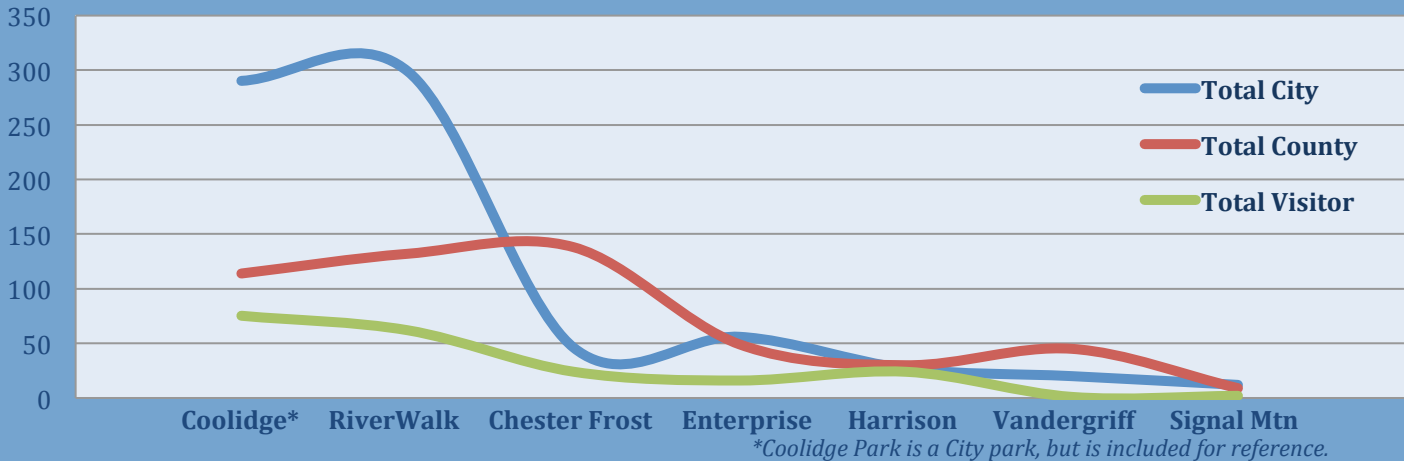


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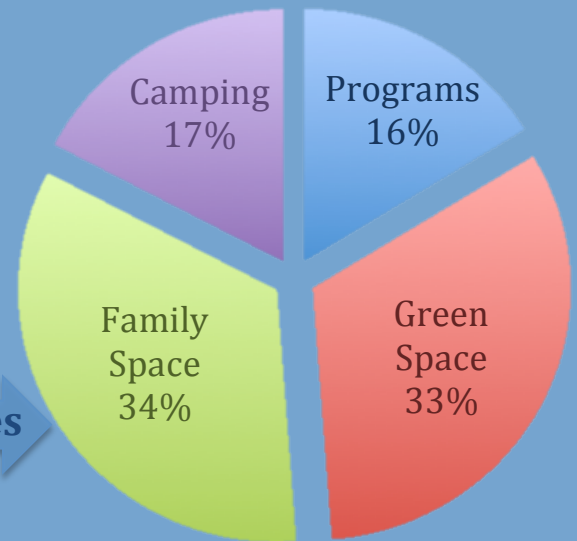
## Park Visits by Residence



Constraints

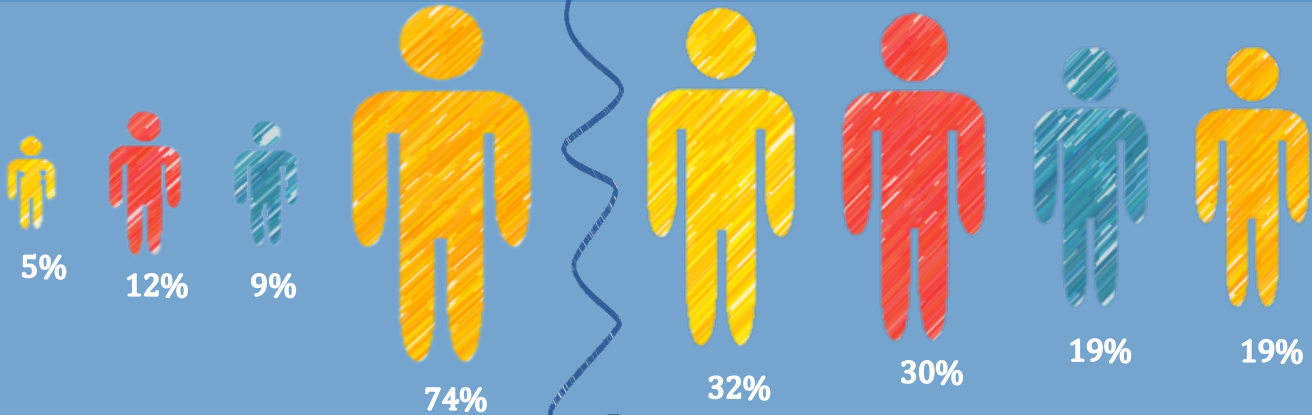
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Priorities



## Relative Size of Park User Groups

## Relative # of Park Visits by User Group



Sport

Outdoor Active

Outdoor Passive

Social

## Executive Summary

### Background

*The Hamilton County Parks & Recreation Department strives to serve citizens through wholesome recreation programs and well-maintained facilities for all ages, abilities, and interests.*

The purpose of this study was to determine the efficacy of Hamilton County in achieving this mission, to profile park users, and to determine user constraints and priorities for future park initiatives.

### Key Facts

- 67% of Hamilton County residents are satisfied or very satisfied with the park system as a whole, 70% believe that parks have a positive impact on their level of physical activity, 72% agree that parks improve their quality of life, 80% view outdoor spaces as central to Hamilton County's identity and 54% agree that the outdoor amenities are a major reason they reside here.
- The average user makes 88 park visits every year- or ~ 2 visits every week.
- There are four major park user types in the Hamilton County area:
  - 1) Sport, 2) Outdoor Active- run,/bike/climb, 3) Outdoor Passive- fish/camp, and 3) Social- walk/picnic.
  - While Social visitors make up a larger percentage of users, Sport and Outdoor Active users make more frequent visits to parks.
- The top five constraints to park usage include: 1) Too Far Away, 2) Lack of Time, 3) Lack of Information, 4) Safety Concerns, and 5) Rowdy Behavior.
- Park Maintenance Issues were the least mentioned constraint to usage.
- Park users overwhelmingly favor the development and maintenance of Family Spaces (picnicking and playgrounds) and Green Spaces (Walk/bike trails, Greenways, Natural Areas).
- The Riverwalk is the most visited park in Hamilton County.

### Implications & Recommendations:

To best impact the local community Hamilton County could:

- Prioritize trails, green spaces, and family areas in future initiatives
- Partner with cities and other organizations to maximize resources & provide linear green spaces, such as the Riverwalk , that have proven successful.
- Partner with local organizations and schools to improve access and information about programs.
- Improve communication with the public (i.e. website) to maximize visitation.
- Promote outdoor physical activity as a way to counter unhealthy regional trends via policy, planning, and education for behavior change.
- Consider implementing a dedicated parks budget to enhance planning.



## National Health Trends

Reports about discouraging health trends, both nationally and in the southeastern region of the United States, have been cited in the popular media. Over 30% of U.S. adults and 15% of children are obese, putting them at a higher risk for heart disease, diabetes, stroke and cancer (Ogden et al., 2012). With an obesity rate of 32%, Tennessee is the fourth fattest state in the country. According to the Youth Risk Behavior Survey (CHCHD, 2011) 27% of high school students in Hamilton County are obese or overweight. This translates into a \$1,429 increase in medical expenses for the obese population and over \$300 million a year in costs associated with medical expenses and loss of productivity in Hamilton County.

These alarming statistics are likely tied to decreasing levels of physical activity. Inactive leisure pursuits, which are linked to diabetes and obesity, have been increasing for decades. Tennessee is among the five least active states in the country, with 30% of residents reportedly engaging in no physical activity outside of their regular job (CDC, 2011). Some of this can be attributed to a “car culture” which is evidenced by the fact that 83% of Hamilton County residents drive alone to work, while the national average is 76% (CHCHD, 2011). Whether it is an issue of transportation planning or of social norms, Hamilton County residents have a deficit of routine physical activity that would reduce risks for many mental and physical disparities.

Physical inactivity is not limited to adults in the county. Almost 60% of Hamilton County students spend more than 3 hours a day in front of a TV or computer screen. Most (58%) aren’t enrolled in any type of physical education class, 75% fail to meet the CDC recommended 60 –minutes of physical activity each day, and 17% get almost no physical activity in a normal week (CHCHD, 2011). Coupled with a poor diet, these trends put youth at high risk for chronic disease. Diabetes rates are strikingly similar to those of obesity and physical inactivity, highlighting an unhealthy cultural phenomenon in the southeast region (CDC, 2011).

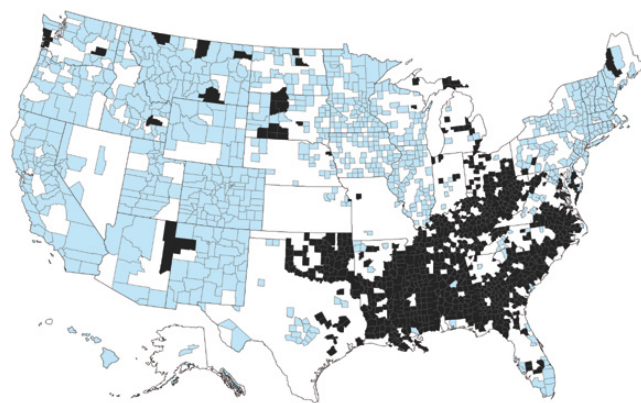


Figure 1: Combined Obesity and Diabetes Map.  
Blue = bottom 25%, Black = top 25%

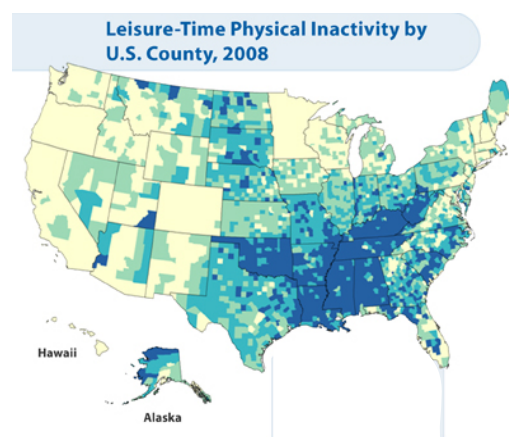


Figure 2. Leisure Time Physical Inactivity Map.  
Darker = less physical activity

Mental health trends provide no solace. Tennessee ranks among the highest states in the nation for rates of prescription medication use (Figure 3), depression & psychological distress (Figure 4), and Attention Deficit Hyperactivity Disorder. Poor physical health is also tied to lower educational outcomes. Though caused by a variety of factors, these trends place a spotlight on our region as crucible of poor health.

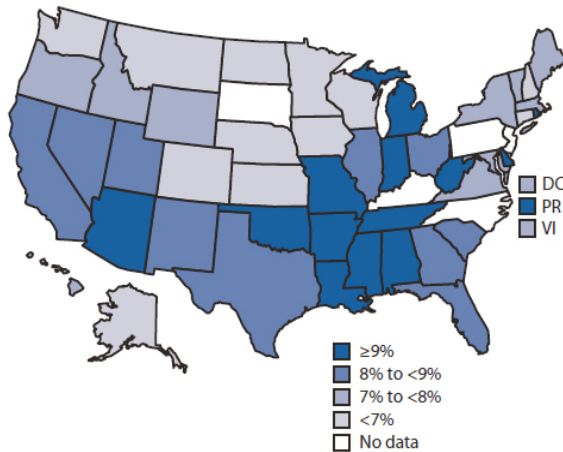


Figure 3. Depression Rates in the US.

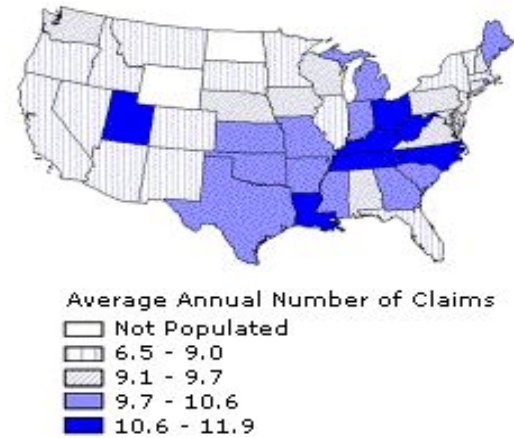


Figure 4. Prescription Drug Use in the US.

### The Promise of Parks

While current health trends are discouraging, actions are being taken to address these concerns and outdoor recreation can be part of a multi-lateral solution. Time spent outdoors is conducive to physical activity and moderation of caloric intake, which reduces the likelihood of obesity, diabetes, and heart disease (Godbey, 2009). Routine, moderate levels of physical activity (e.g. walking, biking) are robust preventers of chronic disease (U.S. Department of the Interior; USDOT, 2005). Natural environments have been found to boost one's mood (Maas et al., 2010) and immune system (USDOT, 2005), relieve stress and symptoms of ADHD (Taylor, Kuo, & Sullivan, 2002), and improve recovery time from mental and physical illness (Godbey, 2009). Finally, frequent park users report fewer visits to a physician for purposes other than checkups than do non-park users (USDOT, 2005).

The benefits of parks are not limited to physical and mental well-being. Parks and green spaces improve property values, encourage tourism, enhance community vitality, and improve environmental sustainability (Harnik & Welle, 2009). Hamilton County is the 4<sup>th</sup> most visited county in TN, benefiting from \$893.3 million in tourist expenditures. One in ten tourists to TN visit a park, indicating that natural areas are a unique draw for tourists. According to the TN Recreation Survey (Fly et al., 2009), state parks generate more than \$11 for every \$1 of funding. Public spaces also enhance social capital through community interaction, thus building trust and cooperation in local neighborhoods. Finally, protected areas help maintain a sustainable natural environment by enhancing air quality, reducing storm water runoff, and supporting a diverse ecosystem (Harnik & Welle, 2009).

## National & Regional Initiatives

Given this empirical support, many national and regional initiatives have been implemented to encourage regular physical activity in the outdoors. These initiatives are designed to influence policy, planning, and personal behaviors.

**Policy-related initiatives** are aimed at providing legislation directed toward a healthier society and a higher quality of life:

- Efforts to implement a mandatory vacation leave for full-time employees, providing time for families to recreate. ([www.timeday.org](http://www.timeday.org))
- Efforts to re-define our national progress indicator, incorporating quality-of-life indicators as well as Gross Domestic Product. ([www.happycounts.org](http://www.happycounts.org))
- The “Leave No Child Inside” campaign to preserve active educational opportunities and combat the increasing time American children spend indoors doing sedentary tasks. ([www.childrenandnature.org](http://www.childrenandnature.org))

**Planning-based initiatives** include efforts to improve access to parks and green spaces, as well as enhancing urban infrastructures to promote routine physical activity.

- The Partnership for Sustainable Communities is a joint effort of the Dept. of HUD, DOT and the EPA to enhance livability by improving transportation choices and investing in community vitality (<http://www.sustainablecommunities.gov/>)
- The Trust for Public Land greenways and trails master plan seeks to connect walking/biking trails across the county, providing access to many citizens in their backyard and easing motor vehicle transportation loads ([www.tpl.org](http://www.tpl.org)).
- The National Recreation and Parks Association ([www.NRPA.org](http://www.NRPA.org)) is dedicated to acquiring and protecting public spaces that enhance physical activity in the outdoors. Their partnership with for-profit vendors (Kaboom.org) has resulted in significant park maintenance and renovations.

Initiatives addressing **Personal Behavior Change** include:

- First Lady Michelle Obama’s “Let’s Move” campaign supporting programs to combat childhood obesity through education about physical activity and nutrition ([www.letsmove.gov](http://www.letsmove.gov)).
- There are myriad of programs, both national and regional, addressing disease prevention through physical activity sponsored by the CDC (<http://www.cdc.gov/stltpublichealth/strategy/index.html>).



## Outdoor Recreation Trends

Participation in outdoor activities across the country is at a 5-year high. The following statistics from the annual report of the Outdoor Industry Association (OIA, 2012) illustrate the recent trends:

- Outdoor participation is most popular with families (73%).
- Caucasians represent the majority of participants (78%), while African Americans are least likely to recreate outdoors.
- Planned spending on outdoor products is up from last year, but 42% of outdoor participants state that the economy effects their participation in outdoor activities.
- Fishing is the most popular "gateway activity" with 46.2 million participants, the others being running, biking and camping.
- The most popular outdoor activities are running, jogging, and trail running with a combined total of almost 51 million participants. Kayaking and stand up paddle boarding are among the top five growth activities.
- 62% of outdoor participants travel one hour or less to participate in outdoor recreation.
- The participation rate in outdoor activities of Americans with walking routes near their home is 20% higher than those without, and the participation rate of those with nearby biking routes is nearly 25% higher than those without.

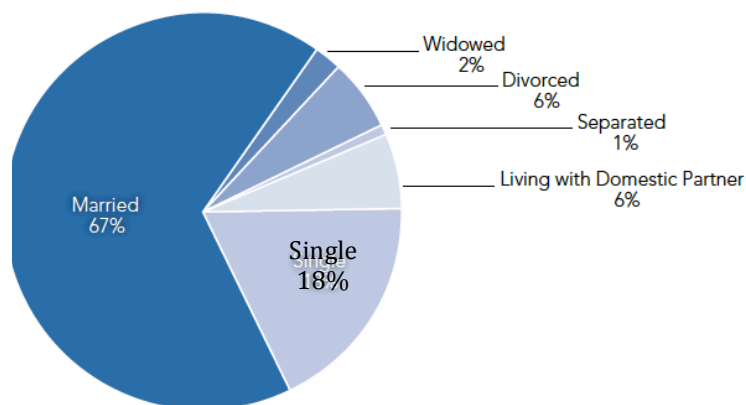


Figure 5. Families are the Biggest Outdoor Users.

Table 1. What Motivates Young People (10-17) to Play Outside?

|                                   | Hispanic | African American | Asian/Pacific Islander | Caucasian |
|-----------------------------------|----------|------------------|------------------------|-----------|
| Get exercise                      | 70%      | 69%              | 65%                    | 68%       |
| Be with family/friends            | 59%      | 44%              | 49%                    | 61%       |
| Keep physically fit               | 51%      | 58%              | 52%                    | 47%       |
| Get away from the usual demands   | 43%      | 38%              | 41%                    | 53%       |
| Experience excitement/adventure   | 43%      | 39%              | 40%                    | 44%       |
| Be close to nature                | 38%      | 30%              | 39%                    | 48%       |
| Develop my skills/abilities       | 36%      | 39%              | 37%                    | 34%       |
| Enjoy the sounds/smells of nature | 36%      | 27%              | 31%                    | 46%       |

National trends may not be representative of local shifts in outdoor recreation. Interviews with local vendors (Rock Creek, Dick's Sporting Goods), and outdoor outfitters (Outdoor Chattanooga, Adventure Guild, UTC Outdoors) reveal differences and similarities with the OIA report. In general, they agree that participation in outdoor activities is increasing, but that we face a serious challenge in overcoming the lure of passive technologies (e.g. video games). Retailers indicated that families with young children often struggle to adapt to their new lifestyle while maintaining participation in outdoor activities. Programs or events that cater to families with young children would ease this burden.

***Families with young children often struggle to adapt to their new lifestyle while maintaining participation in outdoor activities***

***Popular Regional Activities Include:***

- ***Stand Up Paddle Boarding***
- ***Kayaking***
- ***Climbing***
- ***Trail Running***
- ***Triathlons***

Activities showing the most growth include those which require the cheapest resources and the smallest learning curve. Stand up paddle boarding (SUP) is growing quickly in the Chattanooga area, and tourism thrives on immediately accessible adventure activities such as the Zip Stream™ at Ruby Falls. Participation in team sports remains high, but outdoor enthusiasts are increasingly

gravitating toward individual sports, such as kayaking, climbing, and trail running. Competitions incorporating multiple activities are increasingly popular (e.g. mini-triathlons, Warrior Dash). It is increasingly difficult to secure groups of clients (e.g. schools, churches) with a down economy and this clientele has proven fickle throughout the past decade.

Outdoor outfitters note that customers are more driven by social development than in previous years. Tom's shoes are a prime example of this. The shoe company donates one pair of shoes to a needy family for each pair purchased in a store. Environmental stewardship is also a central concern of outdoor participants. They will purchase more expensive equipment if they believe that company is operated in an environmentally friendly manner (i.e. Patagonia clothing). Finally, special events (triathlons, bike races, etc.) are increasingly teaming up with non-profits to generate support for a good cause (e.g. Susan Komen Race for the Cure).

***Special events that incorporate a social mission encourage participation and benefit a worthy cause.***

## Hamilton County Parks Assessment

A recent county park audit (Darden, Nevad, & Saylor, 2012) illustrates the state of the park system in Hamilton County and highlights current deficiencies. This report presents a comprehensive account of all park-related facilities, properties, and expenditures, comparing them to the national standard recommended by the National Recreation and Parks Association (NRPA). The per capita standards and deficiencies are presented in Table 2.

**Table 2. Hamilton County Park Audit. Noted Deficiencies.**

| Hamilton County Population: 336,463 (Includes all cities) |                      |                 |               |                   |
|-----------------------------------------------------------|----------------------|-----------------|---------------|-------------------|
| <b>Facility</b>                                           | <b>NRPA Standard</b> | <b>Standard</b> | <b>Actual</b> | <b>Deficiency</b> |
| <b>Baseball Fields</b>                                    | 1/5,000              | 67              | 61            | 6                 |
| <b>Football Fields</b>                                    | 1/20,000             | 17              | 6             | 11                |
| <b>Softball Fields</b>                                    | 1/5,000              | 67              | 23            | 44                |
| <b>Playgrounds</b>                                        | 1/5,000              | 67              | 54            | 13                |
| <b>Tennis Courts</b>                                      | 1/2,000              | 168             | 107           | 61                |
| <b>Soccer Fields</b>                                      | 1/10,000             | 34              | 29            | 5                 |
| <b>Golf- 18 Hole</b>                                      | 1,50,000             | 7               | 4             | 3                 |
| <b>Outdoor Pools</b>                                      | 1/20,000             | 17              | 5             | 12                |

It should be noted that NRPA is concerned largely with equal access to varied types of facilities for all citizens, urban and rural. Absent from this report are the unmanaged lands (National Forests & Wilderness areas) surrounding Hamilton County that are frequented by local residents and visitors to the region. The Hamilton County Parks and Recreation Department has made a conscious decision not to provide programming, but to maintain lands and facilities that can be utilized by individuals and organizations. This decision also heavily influences the expenditures needed for parks and recreation, as illustrated in Table 3.

**Table 3. Per Capita Park Expenditures (2011).**

|                                    | <b>Budget</b> | <b>Population</b> | <b>Per Capita Exp.</b> |
|------------------------------------|---------------|-------------------|------------------------|
| <b>City of Chattanooga</b>         | \$13,638,685  | 167,674           | \$81.34                |
| <b>Hamilton County</b>             | \$4,411,174   | 336,463           | \$13.11                |
| <b>Hamilton County (no cities)</b> |               | 131,974           | \$33.42                |
| <b>City of East Ridge</b>          | \$1,145,470   | 20,979            | \$54.60                |
| <b>City of Collegedale</b>         | \$486,192     | 8,282             | \$58.70                |
| <b>Town of Signal Mtn</b>          | \$320,786     | 7,554             | \$42.47                |

**Recommendations from this report include: Joint management of county/city park resources and collaboration of services, and development of a cohesive regional plan that improves the equitable distribution of facilities and the offering of varied facilities (neighborhood, community, & regional parks).**

A direct comparison of Hamilton County and the City of Chattanooga annual financial reports helps to elucidate government priorities. In 2012, Chattanooga spent \$30.34 on parks and \$39.88 on recreational programming per resident, representing 1.48% of the city budget. Hamilton County dedicated \$18.14 per resident (or \$46.25 excluding city residents) on parks with no significant expenditures on programming; an estimated 0.98% of the county budget.

Figures 6 and 7 illustrate the location and saturation of parks and green spaces in Chattanooga and Hamilton County. At 11%, Hamilton County has a higher rate of recreational facilities per capita than the US average (8%), but lower than the state average (16%). As seen in Figure 7, parks are not evenly distributed throughout the county. As of 2008, 10 regions in the county contained less than 1% protected land. Without local access to open spaces, residents are much less likely to engage in physical and social activities (Godbey, 2009; Tharp & Quillen, 2008).

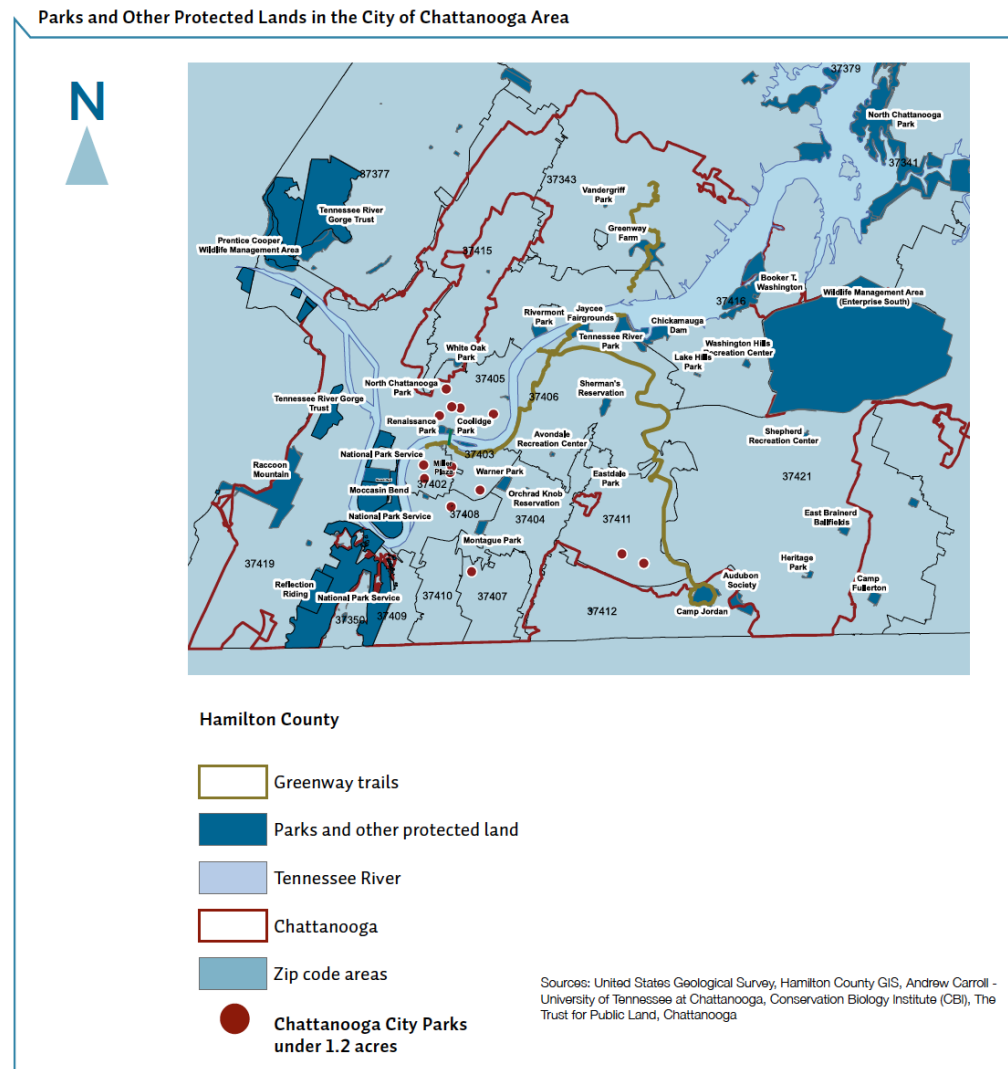


Figure 6. Chattanooga Parks and Trails

# Parks and Protected Lands: Percent of Total Subregion Acres

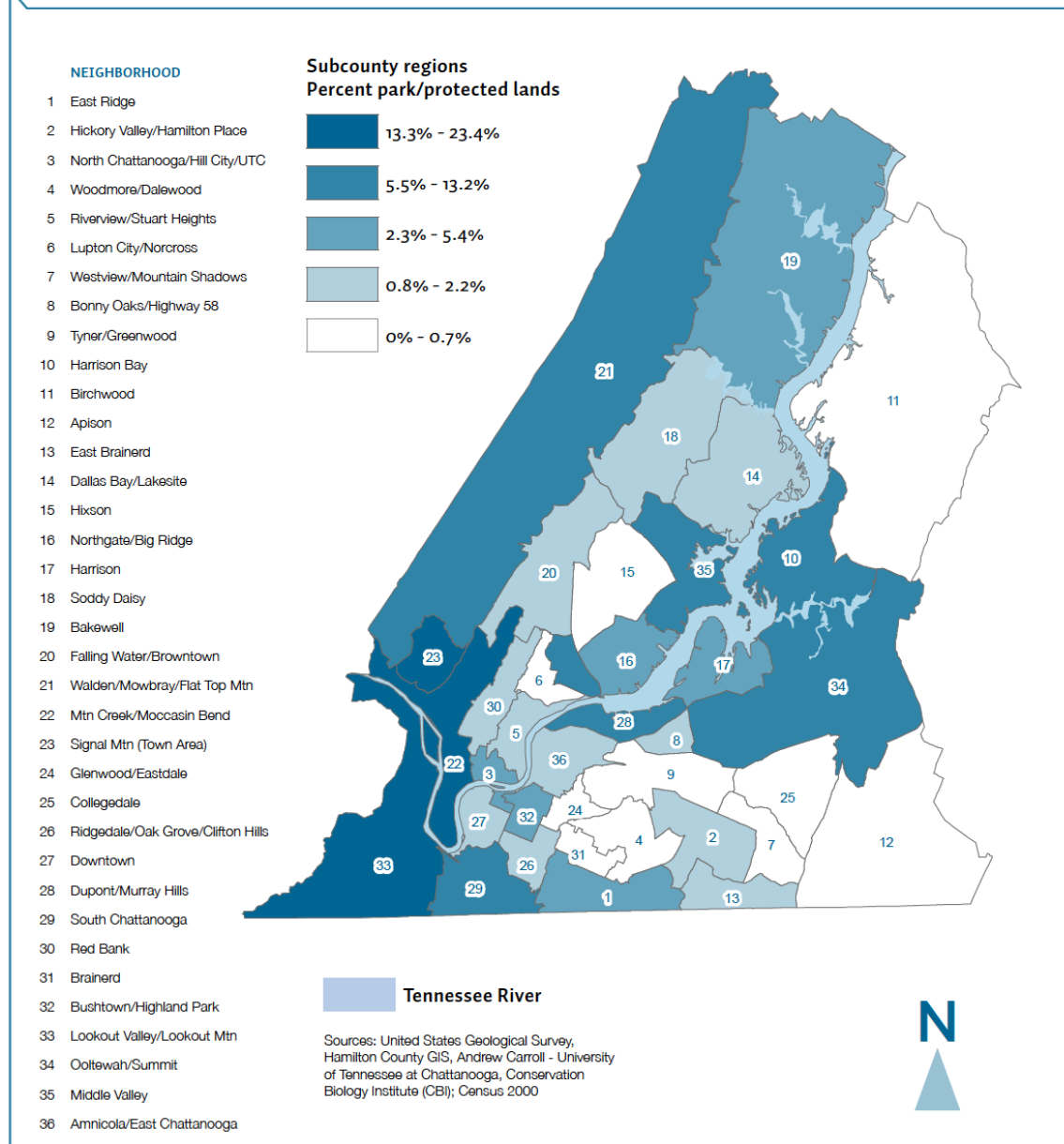


Figure 7. Parks and Public Spaces in Hamilton County



## Hamilton County 5-year Plan Research

### Background

Hamilton County is known across the country as an outdoor destination. Many people travel a long distance just to enjoy the outdoor resources in this area. However, the main stakeholders for park maintenance are local tax-payers. As a public service organization, the Hamilton County Parks and Recreation Department relies on feedback from the public for the development and prioritization of park initiatives. The purpose of this study was to determine the priorities of Hamilton County residents for maintenance, improvements, and modifications in the County Parks system.

Previous efforts have been made to solicit feedback from Hamilton County residents with varied levels of success. This study was conducted by students and faculty at the University of Tennessee at Chattanooga in an effort to determine priorities for park management to enhance the quality of life in our region. Given the disheartening health trends and the energy generated by the response to these statistics, we hope that this report can create enough inertia to affect change.

### Methods

This study was conducted as part of a class project, through which UTC students gained insight into the management and evaluation of the local park system. The survey instrument was developed through in-depth analysis of nine similar studies conducted across the country. Instrument items were adapted from these surveys to fit the purposes and the participants of our study. After generating a comprehensive list of possible questions, students were guided in the development of a concise, one-page survey that could be completed in three minutes or less. The final questionnaire (Appendix) consisted of 12 questions that could potentially generate 86 individual items to be analyzed.

### Sampling

Given limited funding and a lackluster response to previous county surveys, we chose a purposive sampling method. Clusters of county residents, park visitors, and employees were provided with either a hard copy or an electronic copy of the questionnaire. These clusters were chosen to maximize the information gleaned from park users, a cross-section of local residents, parents, and recreation enthusiasts. Electronic questionnaires were distributed through email lists of local organizations (PTA, sports clubs, city, and county employees, etc.) as well as posting a survey link on the county website. In addition, student teams distributed surveys in three parks (Chester Frost, Riverwalk, and Enterprise South) during a heavy use weekend in October. Surveys were also collected at the RiverRocks festival in mid-October. Finally, surveys were distributed to parents through elementary schools identified as “underserved” (i.e. high percentage of free and reduced lunch). These schools were targeted to give voice to a population that may not have internet access, and may not be part of the parent teacher associations. The demographics of

our study sample were very comparable to that of the Hamilton County population, as presented by the 2010 census (Table 4).

**Table 4. Comparison of Study Sample to US Census Data.**

|                         | <b>Number</b> | <b>Study Sample</b> | <b>Hamilton County (Census)</b> |
|-------------------------|---------------|---------------------|---------------------------------|
| <i>Average Age</i>      | 1775          | 41                  | 40                              |
| <i>Avg. Family Size</i> | 1775          | 3                   | 3                               |
| <i>White</i>            | 1235          | 76.1%               | 74.0%                           |
| <i>Black</i>            | 323           | 19.9%               | 20.0%                           |
| <i>Hispanic</i>         | 41            | 2.5%                | 4.5%                            |
| <i>Asian</i>            | 13            | 0.8%                | 2.0%                            |
| <i>Native American</i>  | 2             | 0.1%                | 0.3%                            |

### Analyses

A total of 1,775 surveys were completed during the data collection period (October-December, 2012). These surveys were entered into a spreadsheet and analyzed with the use of SPSS and Amos 20 software. The results include descriptive statistics, illustrating the nature of park participation in Hamilton County, and inferential statistics, which help us to explain and predict noted phenomena for park planning.

#### Factor Analysis

Given the large amount of information collected from these surveys, efforts were made to reduce the individual questions into factors that are both more descriptive and more robust for analyses. Park users, for example, were grouped into activity types with the use of factor analysis. Table 5 shows the user group factors and the activities associated with each factor.

**Table 5. Park User Groups and Associated Activities.**

| <b>Sport</b> |      | <b>Outdoor Active</b> |      | <b>Outdoor Passive</b> |       | <b>Social</b> |       |
|--------------|------|-----------------------|------|------------------------|-------|---------------|-------|
| Basketball   | .693 | Hiking                | .611 | Fishing                | -.693 | Walking       | -.745 |
| Baseball     | .646 | Biking                | .567 | Camping                | -.691 | Picnics       | -.626 |
| Football     | .637 | Running               | .546 | Boating                | -.602 |               |       |
| Tennis       | .434 | Dog Walking           | .433 | Swimming               | -.438 |               |       |
| Soccer       | .375 | Climbing              | .406 |                        |       |               |       |

Park users were asked to identify the main issues that prevent them from visiting the parks. These issues are referred to as constraints. The 14 items that were identified as common constraints were then reduced into 3 factors that correspond with previous park research (Godbey, 2009). These factors deal with

interpersonal experiences, structural and managerial issues, and personal issues that prevent citizens from frequenting the parks. These can be seen in table 6.

**Table 6. Constraint Factors and Associated Items.**

| Experiential      |      | Structural          |      | Personal     |      |
|-------------------|------|---------------------|------|--------------|------|
| Rowdy behavior    | .788 | Trash Litter        | .619 | Lack of Info | .359 |
| Safety Concerns   | .565 | Poor Maintenance    | .598 | Too Far Away | .309 |
| Overcrowding      | .364 | Poor Mowing/Grounds | .558 |              |      |
| Parking Issues    | .314 | Not child friendly  | .297 |              |      |
| Lack of restrooms | .300 |                     |      |              |      |

As we consider priorities for future development, we asked participants to indicate which aspects of the parks should receive the most attention. The 17 original items were reduced to 4 factors through factor analysis. These factors (seen in table 7) were named “Programming,” “Green Space,” “Family Spaces,” and “Camping”.

**Table 7. Park Priorities Grouped into Factors.**

| Green Space    |      | Programming       |      | Family Space |      | Camping      |      |
|----------------|------|-------------------|------|--------------|------|--------------|------|
| Walking Trails | .643 | Programming       | .562 | Playgrounds  | .666 | Camping      | .568 |
| Greenways      | .553 | Special Events    | .548 | Picnicking   | .535 | Fishing      | .498 |
| Bike Trails    | .491 | Publicity         | .434 |              |      | Horse Trails | .283 |
| Natural Areas  | .369 | Fitness Equipment | .387 |              |      |              |      |
| Dog Parks      | .366 | Senior Activities | .343 |              |      |              |      |
| Smoking Ban    | .328 | Athletic Fields   | .326 |              |      |              |      |

Finally, participants were asked to indicate their primary method of finding information about parks and recreation in Hamilton County. The 10 original items were reduced to 4 factors, which are displayed in table 8.

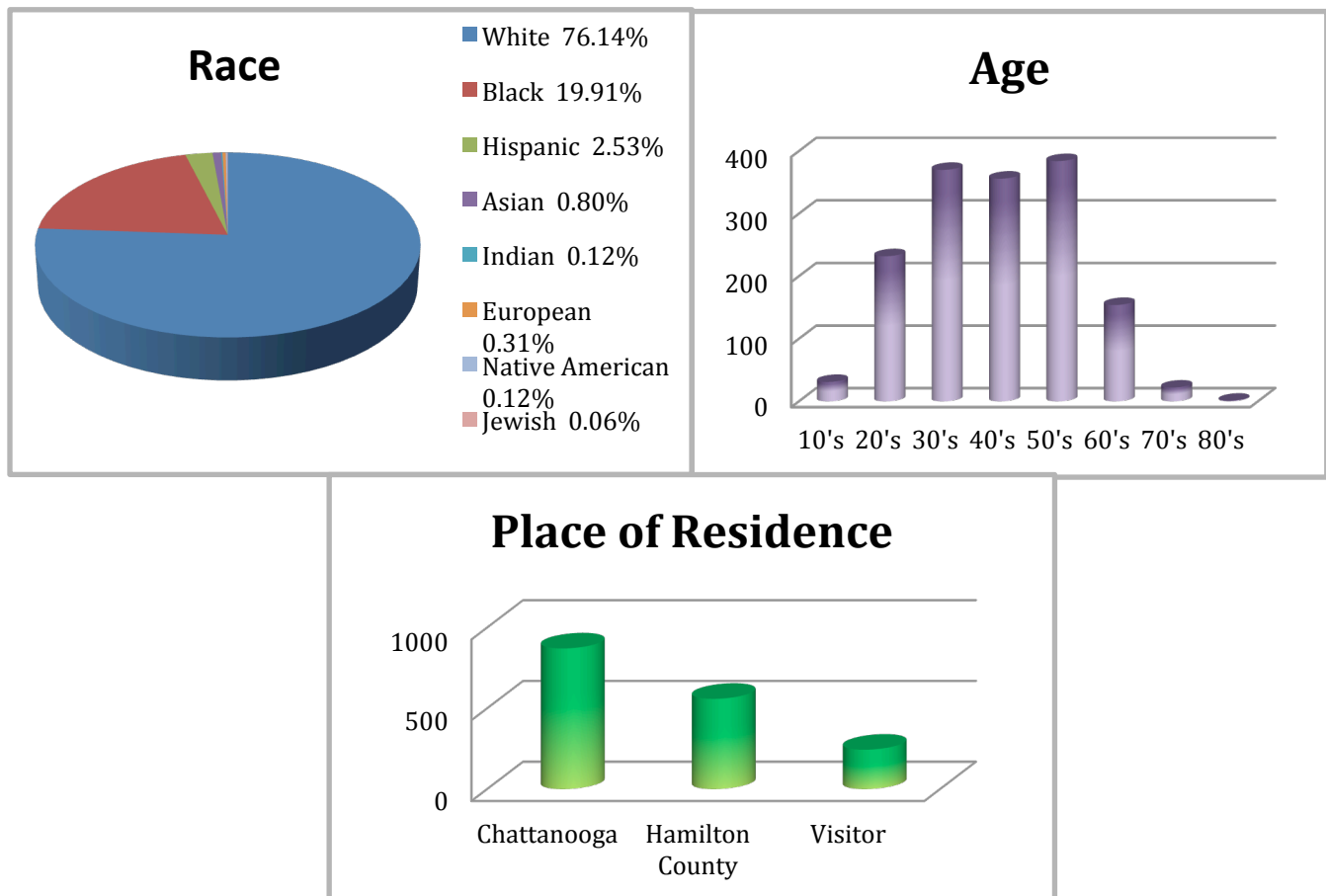
**Table 8. Sources for Obtaining Park Info.**

| Social/ Internet |      | Broadcast  |       | Phone        |      | Visitor Info |       |
|------------------|------|------------|-------|--------------|------|--------------|-------|
| Internet         | .549 | Radio      | -.776 | Yellow Pages | .487 | Brochures    | -.665 |
| Social Media     | .509 | TV         | -.573 | Phone        | .443 | Chamber      | -.379 |
| Family/Friends   | .434 | Billboards | -.501 |              |      |              |       |

## Results

### User Demographics

The following graphs illustrate the demographics of park users who participated in this study. The breakdown for race is comparable to that of all Hamilton County residents, indicating that the parks are being utilized by a diverse population. Park usage peaks between the ages of 30-50, though this is likely influenced by the fact that adults were solicited to complete the surveys for this study. The majority of respondents were Chattanooga residents, followed by nearly 500 county residents, and about 200 visitors not residing in Hamilton County.



### Park Usage

Hamilton County citizens are avid park users, as demonstrated by figures 6 and 7. Participants were asked to name their top 3 parks visited and the frequency of visits to each park. The average Hamilton County visitor makes over 80 park visits per year. In other words, residents are in the parks almost twice a week. Sport and Outdoor Active users visit parks more frequently, while Outdoor Passive and Social recreation users make fewer park visits.

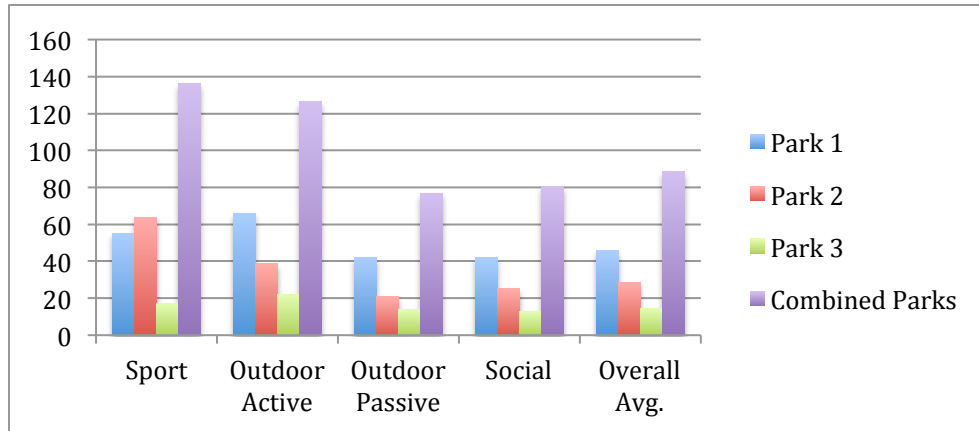


Figure 8. Overall Park Usage.

### Demographics by Park

When viewed from the perspective of demographic usage, it can be seen that white visitors favor one park, making frequent visits to a single park while using other parks with less intensity. Blacks and other minorities frequent two parks equally and then use others with less intensity.

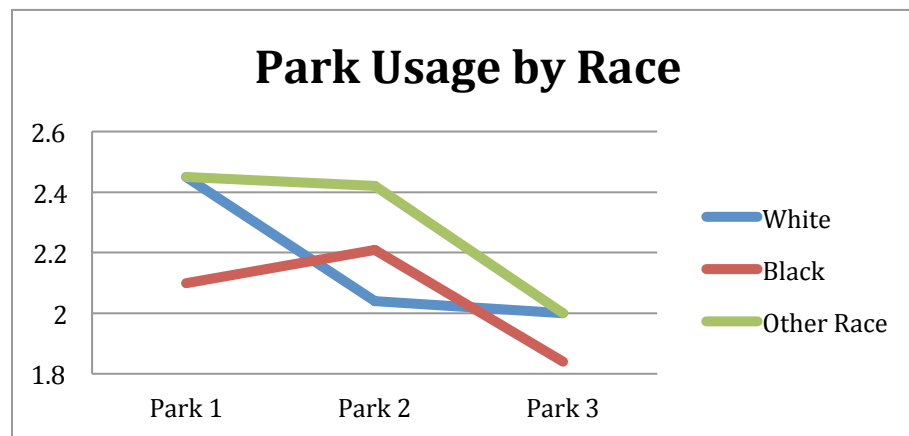


Figure 9. Park Usage by Race. 2= monthly visits, 3= weekly visits

Table 9 shows the demographics of park users visiting the most popular county parks. The age and gender of park visitors should be considered in light of typical survey response rates. It is common for the mother of the household to complete surveys, thus skewing the results toward middle-aged females. However, these same mothers are often frequent park visitors, usually with children and/or a family in tow. Chester Frost, Vandergriff, and Signal Mountain parks primarily attract county residents, while the Riverwalk favors city residents. This is likely due to proximity, but may also be caused by a lack of information regarding other park resources. Enterprise South attracts a nearly equal percentage of city and county users, while Harrison brings in users from the city, county, and region at the same rate. Racial discrepancies are evident at all parks except for the Riverwalk and Signal Mountain Parks. This could be due to access or to activities available at the park. The county is less diverse than Chattanooga proper, and residents will frequent parks that are convenient. Minority users also prefer sporting and social activities, while county parks like Chester Frost, Harrison, and Enterprise South favor Outdoor Active and Outdoor Passive user types.

**Table 9. Demographics for Most Visited County Parks.**

|                               | Average Age | % Female | City Resident | County Resident | Visitor | Race                                                     | Total Children |
|-------------------------------|-------------|----------|---------------|-----------------|---------|----------------------------------------------------------|----------------|
| <b><i>Chester Frost</i></b>   | 45.76       | 71%      | 21.90%        | 65.70%          | 11.40%  | White 89.5%<br>Black 1.9%<br>Hispanic 1.9%<br>Asian 1%   | 1.26           |
| <b><i>Riverwalk</i></b>       | 42.74       | 66%      | 58.90%        | 26.60%          | 12.50%  | White 66.7%<br>Black 23.4%<br>Hispanic 3.2%<br>Asian .4% | 1.2            |
| <b><i>Enterprise</i></b>      | 40.61       | 52%      | 44.80%        | 39.20%          | 12.80%  | White 92%<br>Black 0.8%<br>Hispanic 0.8%<br>Asian 0.8%   | 0.67           |
| <b><i>Harrison</i></b>        | 47.04       | 68%      | 30.50%        | 36.60%          | 30.50%  | White 82.9%<br>Black 6.1%<br>Hispanic 3.7%<br>Asian 2.4% | 0.85           |
| <b><i>Vandergriff</i></b>     | 40.47       | 86%      | 19.30%        | 78.80%          | 1.80%   | White 89.5%<br>Black 3.5%<br>Asian 3.5%                  | 1.79           |
| <b><i>Signal Mountain</i></b> | 36.12       | 41%      | 29.40%        | 58.80%          | 11.80%  | White 64.3%<br>Black 5.9%<br>Hispanic 5.9%<br>Asian 5.9% | 1.33           |



### Demographics by User Type

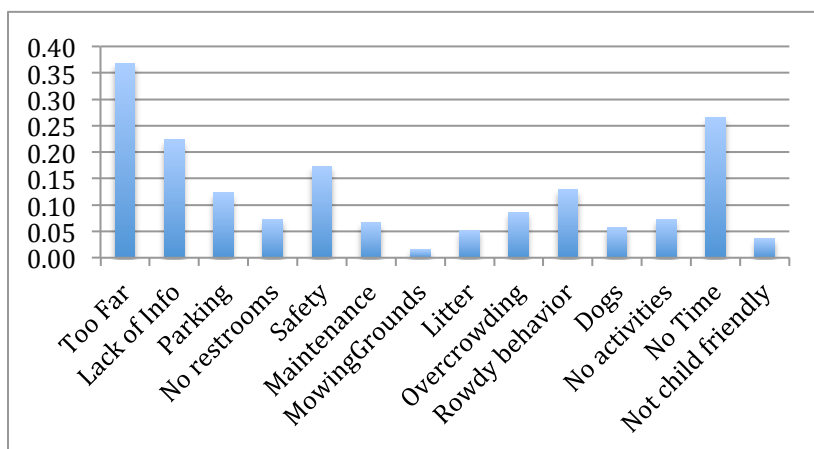
Table 10 provides descriptive statistics for each user type. Social users represent the majority of Hamilton County Park visitors. Thus, while Sport and Outdoor Active users visit the parks more frequently, they represent only 18% of the population of total visitors. Sport users are younger, have more children, and are more diverse, while social users tend to be older and representative of the typical Hamilton County demographic. Outdoor active users are younger than the average, with fewer children and are primarily Caucasian.

**Table 10. Description of Park Users by User Group.**

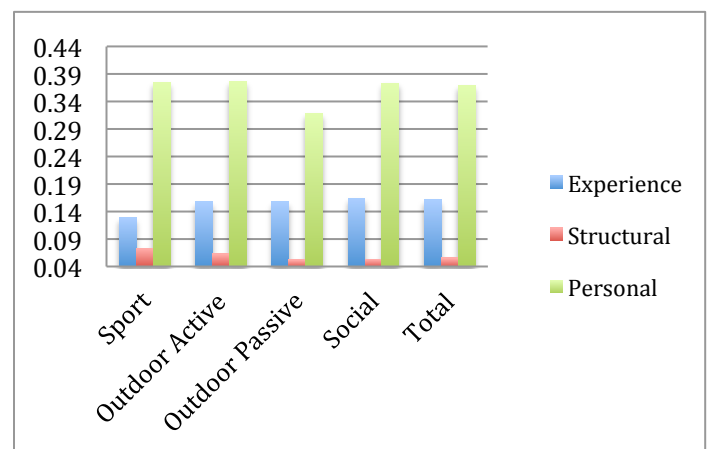
|                        | Avg Age | Total Children | White | Black | Other Race | Female | % of Total Users |
|------------------------|---------|----------------|-------|-------|------------|--------|------------------|
| <i>Sport</i>           | 32.85   | 2.482          | 41.2% | 52.9% | 1.5%       | 57%    | 5%               |
| <i>Outdoor Active</i>  | 39.34   | 1.006          | 79.7% | 9.1%  | 2.7%       | 54%    | 13%              |
| <i>Outdoor Passive</i> | 43.54   | 1.425          | 79.0% | 12.3% | 3.6%       | 54%    | 9%               |
| <i>Social</i>          | 44.08   | 1.224          | 69.0% | 21.9% | 4.4%       | 71%    | 74%              |
| <i>Total</i>           | 43.09   | 1.265          | 70.0% | 20.8% | 4.0%       | 66%    | 100%             |

### Constraints

Constraints had a consistent pattern across demographics and user types. Figure 8 illustrates how often each individual constraint was identified by park users. When grouped into factors, it is evident that personal issues (time, information, distance) are the major barriers to park visitation. This is followed by interpersonal issues, which indicate a negative experience was encountered at a previous time in the park system. Few visitors felt that park management (trash, grounds, etc.) was inadequate. It is notable that users viewed park management as a child safety issue. Those parks which are not maintained on a regular basis may be avoided by families with young children for that reason.



**Figure 11. Individual Constraints Identified by Park Users.**



**Figure 10. Constraint Factors by User Group.**

### Priorities for the Future

Study participants indicated that the most important areas for park development fall into the categories of Green Space (trails and greenways) and Family Spaces (picnicking and playgrounds). Predictably, each user group favored development of facilities that support their preferred activities. Sport users would like to prioritize programming (athletic fields, special events) and family spaces, while Outdoor Active users overwhelmingly support the development of Green Space. This highlights the importance of identifying priorities for each user group. Since Sport and Outdoor Active users frequent the parks more often, they may feel that they should have a louder voice in development priorities. If priorities are made solely on averaged preferences, then decisions will favor the Social users who typically make fewer park visits.

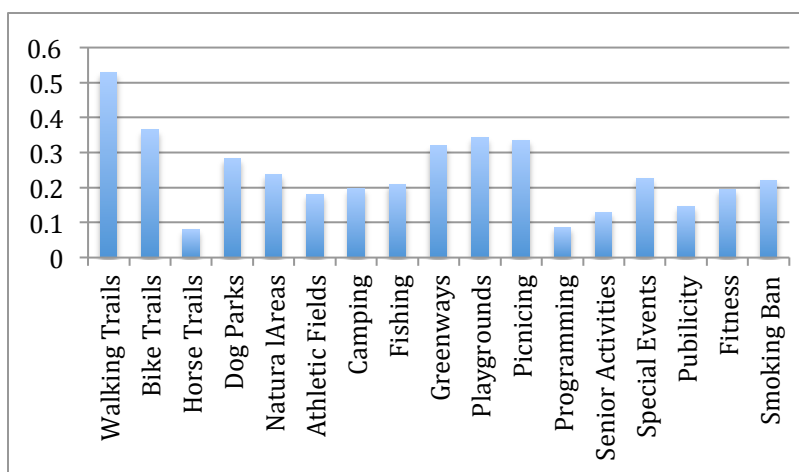


Figure 13. Priorities for Future Park Development.

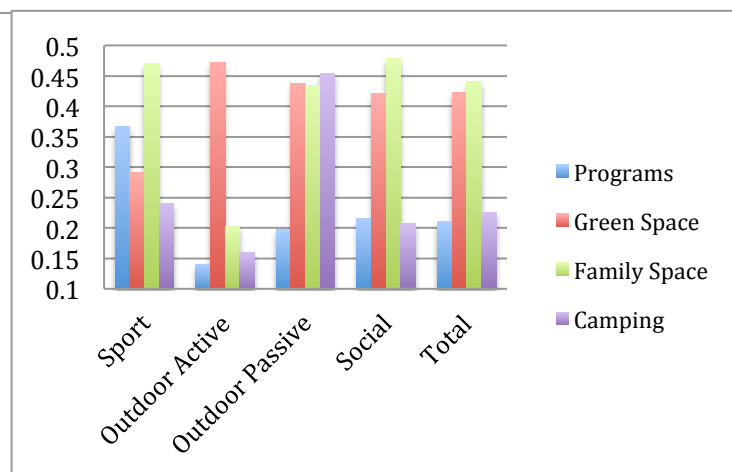


Figure 12. Priorities by User Group

### Perception of HC parks

Hamilton County Park users are overwhelmingly supportive of their local park system. On average, users agree that: 1) Parks have a positive influence on their level of physical activity, 2) Outdoor spaces are central to Hamilton County's identity, 3) Outdoor resources are a major part of why they live here, 4) Parks improve their quality of life, and 5) They are very satisfied with the park system as a whole.

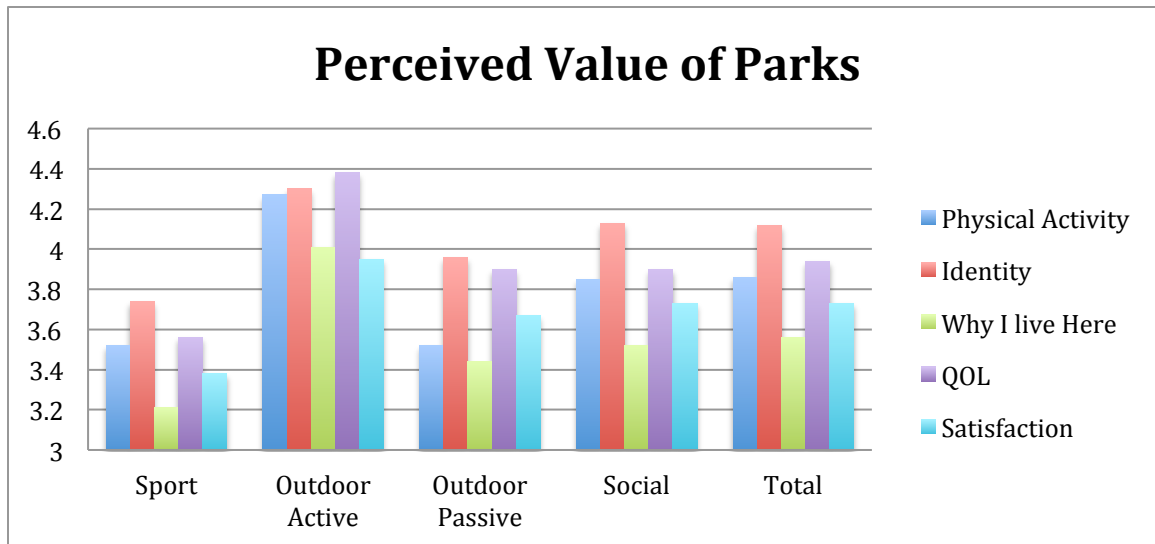


Figure 14. Perception of HC Parks by User Group.

Once again, user types differ in their perception of the local park system. Sport users, while supportive of the parks overall, view parks as less vital to their level of physical activity and Quality of Life (QOL), and are not likely to reside in or visit an area because of the quality of parks. Outdoor Active users, however, see a strong tie between their level of physical activity, quality of life, and the local parks system. Additionally, they see parks and outdoor spaces as central to Hamilton County's identity and reside here specifically for the outdoor opportunities the area provides. These constituents may be key partners and supporters of local parks and should be utilized as community assets when considering future park development. Even social users, who are not frequent park visitors, see outdoor spaces as a major part of the county's identity and believe there is a connection between these parks, their physical activity, and their quality of life.

### Info Source

The final results regard the resources used to find information about Hamilton County Parks. The overwhelming majority of park users use the internet, social media, and friends/family to find park information. This is a clear message about where park resources should be prioritized for park promotion and education.

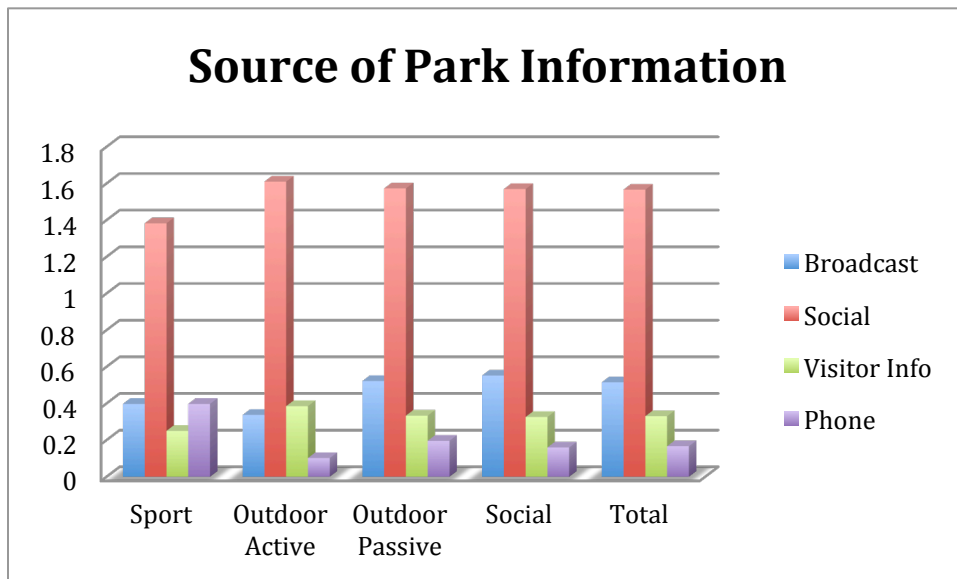


Figure 15. Resource Used to Gain Park Information.

## Conclusions & Implications

The overall perception of the Hamilton County Parks System is very positive amongst the general public. Satisfaction rates are above average and relatively few users identified structural (maintenance) or interpersonal (safety) constraints to their use of Hamilton County parks. Thus, the park system is meeting their mission of

*“Serving citizens through wholesome recreation programs and well-maintained facilities for all ages, abilities, and interests.”*

The major constraints to participation included personal items, which could be interpreted as a lack of interest or priority. This barrier should not be overlooked, however, as users clearly view parks as a positive influence on their physical activity and their quality of life. Providing good **information**, improving **access**, and overcoming **time scarcity** issues should be a top priority for future initiatives.

**Information** barriers can be breached by investing resources in internet and social media communications. The Hamilton County park website provides basic information about the parks, but there is a dearth of current information regarding park initiatives, special events, and park offerings. Given the dominance of social networking sites (e.g. Facebook), it would seem beneficial to **incorporate social media into the communication arsenal**. These sites are free, user-friendly, and already frequented by county park users.

Given the return on investment generated by state parks in TN, it would be beneficial to **enhance tourism marketing for outdoor spaces**, as well. This could be especially lucrative given the nature of spending habits associated with adventure tourists, who spend more per trip, on average, than do visitors to highly publicized attractions such as the TN Aquarium (Adventure Travel, 2010; D.K. Shifflet & Assoc., Ltd, 2011). Enhancing outdoor opportunities (e.g. biking, hiking, climbing, boating, etc.) and access to such activities could provide a substantial return on investment.

**Access** to parks is a difficult barrier to overcome, but it can be done through clever planning and partnerships. **Incorporating trails and greenways** throughout the county would increase access to the park system and relieve highway transportation loads. The Riverwalk was the most visited park according to study participants, indicating an expressed need for such thoroughways. Given that outdoor participation increases 20-25% when a trail is close to one's home (OIA, 2012), this would seem like a positive place to invest resources. **Partnerships with organizations that are already advocating for these trails** (e.g. Trust for Public Land, Rails to Trails, Chattanooga Bike Share) would maximize outputs. Additional access can be provided through the continual addition of "pocket parks", such as the newly constructed Main Terrain Art Park on the Southside of Chattanooga.

As seen in Figure 6, Chattanooga has made strides in green space and trail development; a move that has been recognized by many national publications, including Outside and Bicycling magazines. However, if the goal is to increase park access and all the subsequent benefits, these parks and trails must be evenly-dispersed across the county. The growing greenway system is a move in the right direction, but it must be developed intentionally. Isolated parks and trails, for instance, are less likely to generate use because people must go out of their way to drive to such a park. Many newly constructed neighborhoods lack sidewalks, bike lanes, or any public space for recreational use. Improvements in planning will only happen if the city and county governments are willing to collaborate on regional initiatives that benefit all county residents. **Intentional, cooperative planning could connect isolated areas to an interwoven system of open spaces, alleviating traffic congestion and enhancing public health and quality of life.**

One way to quickly increase access to public green space would be to **generate a joint use agreement between Hamilton County Parks and Hamilton County Schools**. This model is common throughout the U.S. and examples of successful implementation are readily accessible online (c.f. Seattle's agreement contract; <http://www.seattle.gov/parks/publications/Policy/JUA.pdf>). The figure below presents Hamilton County school locations merged with the public parks map presented in section 1 of this document. The light colored areas represent lower access to public parks. It is clear that allowing local residents to use public school spaces for recreation would improve access in many low-saturation areas.

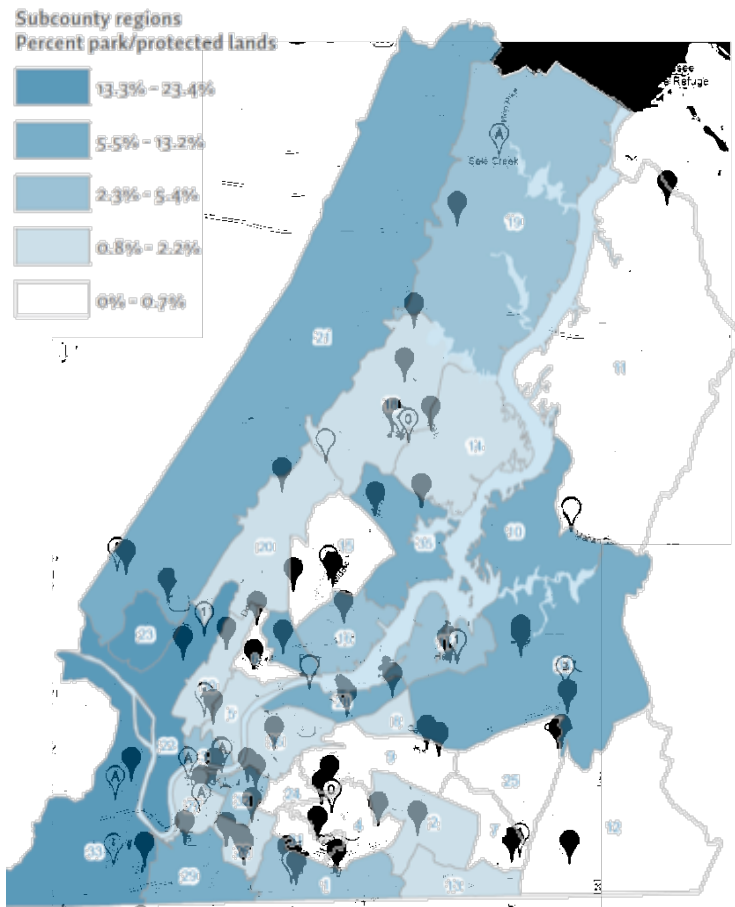


Figure 16. Schools as a solution to park deficits.

**Lack of time** is a ubiquitous excuse for lack of participation in any activity or event. There is no arguing that Americans increasingly struggle with a never-ceasing time crunch. Much of this can be attributed to priorities, as we usually find time to do the things we deem important. ***The challenge, then, is to address a lack of priorities in our region regarding a variety of things that would improve our health: physical activity, time spent outdoors, and healthy eating.*** Riding the coattails of the “Take Back Your Time” campaign, Chattanooga could ***implement a regional “Go Outside” holiday where***

***local businesses close their doors and encourage employees to participate in outdoor events.*** This could easily be combined with one of Chattanooga’s annual outdoor events such as the RiverRocks festival or the Outdoor Expo. This would be consistent with Hamilton County’s growing outdoor identity, it would remove one explicit constraint, promote healthy lifestyles and disease prevention, and educate the populace about outdoor opportunities in the area. In addition, it would be beneficial to promote the low impact, low learning-curve activities that are already popular in this region. ***Providing access to kayaking and paddleboarding equipment and establishing entry-level multi-element races would help introduce local residents to outdoor activities and create a culture of outdoor fitness.***

The majority of users agree that ***Green Spaces and Family Spaces should receive priority*** in future management initiatives. The only exceptions are Sport users, who would like to see significant investment in athletic fields and programming. Hamilton County does not provide programming directly, but they could ***work more closely with community organizations to educate, promote, and inform the community about programming in the parks*** that is provided by other organizations. This could be as simple as having a link on the website

directing users to other sites hosted by those community partners. A more integrated approach would be to host a Google calendar site, where all community organizations can update their activities on a regular basis.

One final recommendation involves the nature of funding for Hamilton County Parks. As noted above, per capita spending on parks is lower in the county than in all surrounding municipalities. Furthermore, park funding is currently provided using a zero-based budget, meaning there are no dedicated funds for parks and recreation. Each initiative undertaken by the county parks requires individual approval from the county government. This system is effective for identifying excessive itemized costs, it helps top managers maintain control of expenditures, and allows for immediate cutbacks in a volatile economy. However, it also makes long-term planning virtually impossible and it is driven largely by the perceptions and preferences of temporarily elected officials (GFOA, 2011). If Hamilton County truly intends to address community interests for park priorities, ***a dedicated parks budget would be the first step to ensure that this highly valued resource thrives for years to come.*** Given the overwhelming majority of support for parks in Hamilton County, establishing a park budget would likely generate positive feedback from the community.



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## Appendix (Park Survey)



### Hamilton County Parks and Recreation Survey

As part of our long-term planning process, Hamilton County is conducting a resident survey. Your information will be helpful when determining priorities for future growth and development.

Gender: M ☐ F ☐ Age: \_\_\_\_\_ Race: \_\_\_\_\_ Zip Code: \_\_\_\_\_

1. How many children do you have in your household? \_\_\_\_\_

2. Please list the public parks that you and your family visit most frequently and mark how often you visit each.

| Please write the park names below: | Daily | 2-3 X a week | Weekly | Monthly | Rarely |
|------------------------------------|-------|--------------|--------|---------|--------|
| A.                                 |       |              |        |         |        |
| B.                                 |       |              |        |         |        |
| C.                                 |       |              |        |         |        |

3. Why do you visit these parks? \_\_\_\_\_

4. Is there anything at these parks that detracts from your experience? \_\_\_\_\_

4. What prevents you from visiting other parks? (Check all that apply)

Too far away ☐ Lack of information ☐ Parking issues ☐ Lack of Restrooms ☐ Safety concerns ☐ Poor Maintenance ☐  
 Poor Mowing/ Grounds ☐ Trash/ litter ☐ Overcrowding ☐ Rowdy behavior of others ☐ Dogs ☐ Variety of activities ☐  
 Lack of time ☐ Not child friendly ☐ Other: \_\_\_\_\_

5. What recreational activities do you enjoy in the parks? (Check all that apply)

Walking ☐ Running ☐ Hiking ☐ Biking ☐ Swimming ☐ Picnics ☐ Camping ☐ Fishing ☐ Boating ☐ Tennis ☐ Football ☐  
 Baseball /Softball ☐ Basketball ☐ Soccer ☐ Dog Walking ☐ Climbing ☐ Other: \_\_\_\_\_

| 6. Please mark your level of agreement with the following statements        | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|-----------------------------------------------------------------------------|----------------|-------|---------|----------|-------------------|
| I am very satisfied with my current level of physical activity.             |                |       |         |          |                   |
| Public parks have a positive impact on my level of physical activity.       |                |       |         |          |                   |
| Parks and outdoor spaces are a major part of Hamilton County's identity.    |                |       |         |          |                   |
| Parks and outdoor spaces are a major part of why I live in/visit this area. |                |       |         |          |                   |
| Public parks improve my overall quality of life.                            |                |       |         |          |                   |
| I am very satisfied with the Hamilton County Parks system as a whole.       |                |       |         |          |                   |

7. Which would you consider a priority for future parks and recreation growth and development?

(Please indicate your top three choices – with #1 being most important)

Walking/Hiking Trails ☐ Bike Trails ☐ Horse Trails ☐ Dog-Friendly Parks/Trails ☐ Natural Areas ☐  
 Athletic fields ☐ Camping ☐ Fishing/Water Access ☐ Greenways/connecting trails ☐ Playgrounds ☐ Picnic Facilities ☐  
 Programming ☐ Senior Activities ☐ Special Events ☐ Increased Publicity ☐ Outdoor Fitness Equipment ☐  
 Other: \_\_\_\_\_

8. What information resource do you use to find out about parks, recreation facilities, programs, events, etc?

Internet ☐ Phone Call ☐ Television Media ☐ Yellow Pages ☐ Park Brochures ☐ Chamber/Visitors Center ☐ Family & Friends ☐ Social Media (Facebook/Twitter) ☐ Other: \_\_\_\_\_